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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,781

07/20/2005

Walter Dorr

49090

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1609 7590 07/11/2008

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EXAMINER

LOPEZ, FRANK D

ART UNIT

PAPER NUMBER

3745

MAIL DATE

DELIVERY MODE

07/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,781	Applicant(s) DORR, WALTER	
	Examiner F. Daniel Lopez	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 11-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 11-18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Applicant's arguments filed April 8, 2008, have been fully considered but they are not deemed to be persuasive.

Applicant's arguments with respect to claims 11-18 and 20-24 have been considered but are deemed to be moot in view of the new grounds of rejection. The new grounds of rejection are necessitated by the added limitations that the smaller circumferential section of the piston opens on the gas space (e.g. claim 1 line 10-12).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 11-18 and 20-24 are rejected under 35 U.S.C. § 103 as being unpatentable over Peter et al in view of Schabuble et al, and Clark. Peter et al discloses a piston type device comprising a piston (including 6) of a non-magnetizable material (column 2 line 16-17) axially movable in and dividing a cylindrical tube (1, 5) into a first gas space and a second hydraulic space; wherein the piston has radially smaller (6 surrounded by 8) and larger (e.g. 6 not surrounded by 8) circumferential sections spaced from and engaging the tube, forming the gas and hydraulic spaces (column 2 line 49-57), respectively, with a radial shoulder there between; wherein a magnet arrangement (8) is mounted on and about the smaller circumferential section; two sensors (10, 11) positioned on an exterior of the cylindrical tube, which responds to the field generated by the magnets, to determine piston end positions; but does not disclose that the cylindrical tube is made of magnetizable material; that the magnet arrangement includes a plurality of permanent magnets formed as an annular ring (22), mounted between first and second ring elements (25, 26) of magnetizable material; wherein the ring elements have an exterior diameter, adjacent the magnets, spaced from the tube, and, more remote from the magnets having an exterior diameter approximating the interior diameter of the tube, and wherein the magnets are mounted at a radial distance from a circumference of the piston, in a row, concentric with a longitudinal axis of the piston, with a same polarity relative to each other so that their polar axis extend parallel to the longitudinal axis; that the sensors are Hall effect sensors; or that a threaded ring

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engages a threading on the piston to hold the annular rings together on the smaller circumferential section.

Schabuble et al teaches, for a piston type device comprising a piston (27, 28) of a non-magnetizable material (column 4 line 22-23) axially movable in a cylindrical tube (29) ; a magnet arrangement mounted on the piston and two sensors (21, 21', fig 5, column 2 line 21-22) positioned on an exterior of the cylindrical tube, which responds to the field generated by the magnets, to determine piston position; that the cylindrical tube is made of magnetizable material (column 4 line 14-16); that the magnet arrangement including a plurality of permanent magnets (23, fig 6) formed as an annular ring (22), mounted between first and second ring elements (25, 26) of magnetizable material; wherein the ring elements have an exterior diameter, adjacent the magnets, spaced from the tube, and, more remote from the magnets having a exterior diameter approximating the interior diameter of the tube, and wherein the magnets are mounted at a radial distance from a circumference of the piston, in a row, concentric with a longitudinal axis of the piston, with a same polarity relative to each other so that their polar axis extend parallel to the longitudinal axis; and that the sensors are Hall effect sensors.

Since the magnet arrangement of Peter et al and Schabuble et al are interchangeable in the piston art; it would have been obvious at the time the invention was made to one having ordinary skill in the art to replace the magnet arrangement of Peter et al with a magnet arrangement which includes a plurality of permanent magnets formed as an annular ring (22), mounted between first and second ring elements (25, 26) of magnetizable material; wherein the ring elements have an exterior diameter, adjacent the magnets, spaced from the tube, and, more remote from the magnets having a exterior diameter approximating the interior diameter of the tube, and wherein the magnets are mounted at a radial distance from a circumference of the piston, in a row, concentric with a longitudinal axis of the piston, with a same polarity relative to each other so that their polar axis extend parallel to the longitudinal axis; that the sensors are Hall effect sensors; and that the cylindrical tube is made of magnetizable material, as taught by Schabuble et al, since one having ordinary skill in the art would have been able to carry out such a mounting and the resulting combination would predictable work in the same manner.

Clark teaches, for a piston type device comprising a piston (20, 22, 28) axially movable in a cylindrical tube (16) and having radially smaller and larger circumferential sections (as part of 20) spaced from and engaging the tube, with a radial shoulder there between; with an arrangement mounted on and about the smaller circumferential section; that a threaded ring (28) engages a threading on the piston to hold the annular rings together on the smaller circumferential section.

Since the modified Peter et al doesn't give details of how the arrangement is held on the smaller circumferential section and Clark does; it would have been obvious at the time the invention was made to one having ordinary skill in the piston art to wherein a threaded ring engages a threading on the piston to hold the annular rings together on the smaller circumferential section, as taught by Clark, since one having ordinary skill in the art would have been able to carry out such a configuration and the results would be reasonably predictable.

Conclusion

Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is (571)-272-4821. The examiner can normally be reached on Monday-Thursday from 6:00 AM -4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is 571-273-8300. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

/F. Daniel Lopez/

F. Daniel Lopez
Primary Examiner
Art Unit 3745
July 14, 2008